ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION RECORDS

Numbers 814 to 858

SHOUT
SHARE
IT

Copy

B.

U. S. Fish Commission
Dredging Records.
1880.

Locs. 814-

Aug. 18-

All bearings in this
book are magnetic.

Air temperatures were taken by a Gas. Green, thermometer, supplied by the Navy Dept. and corrected to within .5 of a deg. It was placed in the open pilot house.

Trawl

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra.

Current number of observation, 814.

Date, Aug. 18. 1880.

Locality, off Block Island.

Bearings, Block I., Lt., N. N. W., 5/8 W. 18 miles.

Time of day, 1 P.M. ; of tide,

State of sky, b. c.

Temperature of air, 72.

" surface of water, 72. (N.Z. 40007.

× " at depth of 5 fathoms, 71° (10f. 57) (20f. 49.)

" of bottom, 46. (N.Z. 42666

Depth, in fathoms, 27 1/2

Nature of bottom, sand and gravel

Direction of ~~surface current~~, wind S. E.

Force of ~~surface current~~, wind 2.

Direction of ~~bottom current~~, drift. S. W.

Force of ~~bottom current~~, drift 1/4 mile

Name of vessel, Fish Hawk.

To what service attached, U.S.F.Co.

Name and rank of commanding officer, J. A. Tanner. Lieut, U.S.N.

Name and position of observer, F. C. VanVliet, M.D.

× Serials taken with N.Z. 42666.

814.

REMARKS.

Pecten tenuicostata, fem.
Asterias vulgaris.
Leptasterias comptà. abund.
Cribrella sanguinolentà, fem.
Buccinum undatum, abd.
Cyprina Islandica. abd.
Echinarachnius parma (fem)
Ophioglypha Sarsii. (one)
Strongylocentrotus Drd. fem.
Limanda ferruginea
Lophius piscatorius.
Pseudorhombus oblongus.
Phycis tenuis.
" chuss.
Raia. sp.
Zoarces anguillaris.
Cottus 18- spinosus.
Merluccius bilinearis.
Raia erinacea?

Chester Rake Dredge.

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra.

Current number of observation, 815

Date, Aug. 18, 1880.

Locality, off Block I.

Bearings, Block I. Lt., N. W. by ~~N.~~ N.
17 miles.

Time of day, 2.15 P.M.; of tide,

State of sky, b. c.

Temperature of air, 72

" surface of water, 72. (n.z. 40007.

× " at depth of 5 fathoms, 71° (107.56°, 20, 49°

" of bottom, 48 n.z. 42666.

Depth, in fathoms, 29.

Nature of bottom, sand.

Direction of ~~surface current~~ wind S.

Force of ~~surface current~~ wind 2.

Direction of ~~bottom current~~ drift S. W.

Force of ~~bottom current~~ distance 1/4 mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

× n.z. 42666.

815.

REMARKS.

fine sand very rich

Liparis sp. from P. tenuicostatus.
Merluccius bilinearis juv.

Dredge

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra.

Current number of observation, 816.

Date, Aug. 23.

Locality, Narragansett Bay,

Bearings, Brenton's Reef Lt. Ship.
E. 3/4 S., 2 3/4 miles.

Time of day, 10.25 a.m.; of tide,

State of sky, clear.

Temperature of air, 71.

" surface of water, 69. N.Z. 40007.

" at depth of fathoms,

" of bottom, 66. N.Z. 42666.

Depth, in fathoms, 8 1/2

Nature of bottom, sand.

Direction of ~~surface current~~ wind S.

Force of ~~surface current~~ wind 2.

Direction of ~~bottom current~~ drift S. E.

Force of ~~bottom current~~ distance 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

816.

REMARKS.

Coarse sand, not very rich in life. A variety of minute shells and some Amphipods. Echinarachnius parma, Mactra, Lunulites.

Dredge

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 817.

Date, Aug. 23.

Locality, Narragansett Bay.

Bearings, Brenton's Reef Lt. Ship E. ½ N. 3 miles.

Time of day, 11 a.m. ; of tide,

State of sky, clear.

Temperature of air, 72

" surface of water, 68. N.Z. 40007.

" at depth of fathoms,

" of bottom, 63. N.Z. 42666.

Depth, in fathoms, 10.

Nature of bottom, sand.

Direction of ~~surface current~~ wind S.

Force of ~~surface current~~ wind 2.

Direction of ~~bottom current~~ drift S.E.

Force of ~~bottom current~~ drift ¼ mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

817.

REMARKS.

sand and shells

Fauna characters as Lot 7.

Echinarachnius parma. Nearly 2

Dredge

TEMPERATURE RECORD.

Instrument used, Negretti Zambra.

Current number of observation, 8 / 8,

Date, Aug. 23, 1880.

Locality, Narragansett Bay.

Bearings, Brenton's Reef Lt. Ship. E. ½ N., 3¼ miles.

Time of day, 11.20 a.m.; of tide,

State of sky, clear.

Temperature of air, 72.

" surface of water, 68 N.Z. 40007.

" at depth of fathoms,

" of bottom, 65 N.Z. 42666.

Depth, in fathoms, 9½

Nature of bottom, sand.

Direction of ~~surface current~~ wind, S.

Force of ~~surface current~~ wind, 2.

Direction of ~~bottom current~~ Drift, S.E.

Dist. ~~Force of bottom current~~ Drift, ¼ mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Same as last.
Nephelis vulgaris
Cimacea. abundant

Trawl

TEMPERATURE RECORD.

Instrument used, Negretti Zambra.

Current number of observation, 8/9

Date, Aug. 23, 1880.

Locality, Narragansett Bay.

Bearings, S. End Hope Island, S. E. by E. 1/2 E., 1/2 mile

Time of day, 1 P.M., ; of tide,

State of sky, clear.

Temperature of air, 74.

" surface of water, 73. N.Z. 40007.

" at depth of fathoms,

" of bottom, 70. N.Z. 42666.

Depth, in fathoms, 6.

Nature of bottom, mud.

Direction of ~~surface current~~ wind, S. S. W.

Force of ~~surface current~~ wind, 3.

Direction of ~~bottom current~~ sail, W. S. W.

Force of bottom current distance, 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Rachē [illegible] Ops.
Limulus polyphemus. ~~Florida~~
Eupagurus longicarpus, Calif. with Peridermum canadense on shell
" pollicaris, many and Calif.
Adeidæa.
Adeïdæ Forbesii
Callista [illegible] Calif.
Fulgur [illegible]
Tyca typus canaliculatus
Solifer Realini mod. and ysp.
Lebinia emarginata.
Chætopterus pergamentaceus tube
Molpula Mankattensis abund.
Halecium
Stenotomus argyrops.
Pseudopleuronectes Americanus.
Lophopsetta maculata.
Prionotus carolinus
Cynoscion regalis juv.
Engraulis vittatus.
Pseudorhombus dentatus.
~~End of~~ N.J. 42666, tube protecting inner tube broken at end, and containing water. Protecting tube to bulb, also containing a little water in addition to mercury, some of this mercury escaping.

Trawl

TEMPERATURE RECORD.

Instrument used, Negretti Zambra.

Current number of observation, 820

Date, Aug. 23. 1880.

Locality, Narragansett Bay.

Bearings, S. end Hope Island N. N. E., 1/4 mile.

Time of day, 1.40 P.M.; of tide,

State of sky, Clear.

Temperature of air, 76.

" surface of water, 72. N.J. 42666

" at depth of fathoms,

" of bottom, 70 N.J. 40007.

Depth, in fathoms, 5 1/2

Nature of bottom, mud.

Direction of ~~surface current~~ wind, S. S. W.

Force of ~~surface current~~ wind, 4

Direction of ~~bottom current~~ drift, W. by S.

Force of ~~bottom current~~ distance, 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

§ 20.

REMARKS.

Similar to last, but a great deal more with broad brown streaks commencing behind.

Squilla empusa 2 spec.
Alpheus Forbesii
Callianeta Australis
Lycetyphis Canaliculata
Thalycon Carica
Locyo Realii byssi
Nucula proxima
Yoldia limatula
Nephthys incisa
Mackelia lucida.

Syngnathus fuscus.
Neuroplecronectes americanus
Ovos cyprinus fin.

TEMPERATURE RECORD.

Instrument used. Negretti-Zambra.

Current number of observation. 821.

Date, Aug. 23, 1880.

Locality. Narragansett Bay.

Bearings, S. End Hope I., N. by E., 1/2 mile

Time of day, 2.15 P.M.; of tide.

State of sky, clear.

Temperature of air, 78.

" surface of water, 72 N.Z. 42666

" at depth of fathoms,

" of bottom, 70. N.Z. 40007.

Depth, in fathoms, 5.

Nature of bottom, mud.

Direction of ~~surface current~~ wind, S.S.W.

Force of ~~surface current~~ wind, 4.

Direction of ~~bottom current~~ drift, S.W.

~~Force of bottom current~~ Distance, 1/4 mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

821

REMARKS.

Similar to Cant,
Nepeta, incisa
Medicia Lamia

Raia, sp. jun. one spec.
Rhombus oblongus. jun.

Trawl

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 822.

Date, Aug. 23. 1880.

Locality, Narragansett Bay.

Bearings, S. end of Hope Island.
N. E., 1/8 mile.

Time of day, 3 P.M., : of tide.

State of sky, clear.

Temperature of air, 78.

" surface of water, 71. N Z. 42666.

" at depth of fathoms,

" of bottom, 70. N Z. 40007.

Depth, in fathoms, 4 1/2

Nature of bottom, sand.

Direction of ~~surface current~~ wind S. S. W.

Force of ~~surface current~~ wind 4.

Direction of ~~bottom current~~ drift W.

Force of ~~bottom current~~ Island 1/4 mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Mus. Boston shells:
Bursa Turbia, covering net
Cerianthus borealis Tube
Squilla empusa, Spec
Hydroides pectinata
Nephtys incisa
Nucula tenuis
Nucula proxima

Prionotus carolinus.
Lophopsetta maculata.
Stenotomus argyrops.
Cynoscion regalis, fins.
Tautogolabrus adspersus.
Phycis tenuis.

Dredge

TEMPERATURE RECORD.

Instrument used, Negretti-Zamba.

Current number of observation, 823

Date. Aug. 24. 1880.

Locality, N. of Block I.

Bearings, North Light, Block I.
W. 1/2 S., 1 1/2 miles.

Time of day, 12.35 P.M. : of tide,

State of sky, C. C.

Temperature of air, 74.

" surface of water, 65. N.Z. 46400.

x " at depth of 5 fathoms. 63° (10 of. 630

" of bottom, 60 N.Z. 40007.

Depth, in fathoms, 15 1/2

Nature of bottom, sand,

Direction of ~~surface current~~ wind, W.

Force of ~~surface current~~ wind, 3. ~~4~~ miles

Direction of ~~bottom current~~ drift-, N.W.

Force of ~~bottom current~~ distance, 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

x N.Z. 40007.

REMARKS.

Fine and coarse sand.
Pecten tenuicostatus (Lyell)
Lepidocentrus complanatus.
Venericardia borealis.
Echinarachnius parma.
Strongylocentrotus drobachiensis
Modiola modiolus. Recent.
Cranyon vulgaris.
Sterechinus neumayeri

824 Trawl.

TEMPERATURE RECORD.

Instrument used, Negretti Zambra.

Current number of observation, 824.

Date. Aug. 24, 1880.

Locality, North of Block I.

Bearings. North Lt. of Block I., S. W., 1/4 W., 1 mile.

Time of day. 12,50 P.M.; of tide.

State of sky. clear.

Temperature of air, 74.

" surface of water, 65. N.J. 46400.

x " at depth of 5 fathoms. 63° (10f. 63°

" of bottom, 67 N.J. 40007.

Depth, in fathoms, 13.

Nature of bottom, sand.

Direction of ~~surface current~~, wind W.

Force of ~~surface current~~, wind 3.

Direction of ~~bottom current~~, drift N.W.

~~Force of bottom current~~, Distance 1/4.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

x N.J. 40007.

824

REMARKS.

Lamium purpureum obelia
Pedalium terrestre ab 27
Sibbaldia Drobachensis retrorsum
Echinurachnium pectinatum
Mozzola nudicaulis.
Crepedula fornicata
Lotiga Realii
Leptasterias compta.
Onchidium striatum
Nectarium marginatum
Stylifer Stimpsonii
Alcyonium carneum.

Fauteja ovicta.
Fauteja obscura a Sapeiro.
Rapa Lacerta.
Collia Reynoldsii (Grey)
Stephanoceros Eichhornii
Physis Leonis.
Rana Temporaria Americana
Rana Pickeringii
Ruta graveolens
" angustifolia
Disporum in Rectus terminalibus
Phimela Carolinensis
Rana Pickeringii Albinos.

Allen Trawl.

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 825.

Date, Aug. 24, 1880.

Locality, N.W. Block Island.

Bearings, N. Light of Block I. N.S. W. 3/4 W., 1 1/4 miles.

Time of day, 1.30 P.M. : of tide.

State of sky, clear.

Temperature of air, 73.

" surface of water, 67. N.J. 46400

" at depth of 5 fathoms. 61. N.J. 40007

" of bottom, 60. "

Depth, in fathoms. 13.

Nature of bottom, sand.

Direction of ~~surface current~~ wind, N. S. W.

Force of ~~surface current~~ wind, 4.

Direction of ~~bottom current~~ drift, N. W.

Force of ~~bottom current~~ distance, 1/2 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

825

REMARKS.

Rand, similar to Cat, but less in variety and buckle. Echinarachnius parma, making up most of bulk.
Stimpsonia chorus very abt.
Pecten tenuicostatus Conrad
Serpula kimi
Stylifer Stimpsoni
Mactra solidissima dead
Cancer irroratus.
Eupagurus Bernhardus

Raia (sp.)
Pseudorthoceras dentatum
Lophospeira maculata.
Pleurotomaria Armeniaca
Pleurotomaria parabinus.

Dredge.

TEMPERATURE RECORD.

Instrument used, Negretti-Zamba.

Current number of observation. 826.

Date. Aug. 24, 1880.

Locality, North of Block I.

Bearings. North Light of Block Island W. N. W. 1/2 W., 2 1/2 miles.

Time of day, 2.40 P.M.; of tide,

State of sky, clear.

Temperature of air, 73.

" surface of water, 67° N.Z. 46400.

" at depth of 5 fathoms. 66. N.Z. 40007.

" of bottom, 57. "

Depth, in fathoms, 22.

Nature of bottom. sand.

Direction of ~~surface current~~ wind S.

Force of ~~surface current~~ wind 3.

Direction of ~~bottom current~~ drift S. S. W.

~~Force of bottom current~~ Distance 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

826.

REMARKS.

Anus [illegible]
[illegible]
Tenuicauda [illegible]
Capillaria [illegible]
[illegible] acculeata.
Nitae nigripes
Ichneulia [illegible]
Hirudo [illegible]
Ptilocheirus [illegible]
Cimpedina [illegible]
[illegible]
Dracunculus [illegible]
Cercyra [illegible]
Septostomum [illegible]
Tetrabothrium [illegible]
[illegible]
Ascaris [illegible]
Strongylus [illegible]
[illegible]
Lumbricus [illegible]
Gordius [illegible]
Ascaris [illegible]
Trichocephalus [illegible]

Blake Travel

TEMPERATURE RECORD.

Instrument used, Negretti-Zamba

Current number of observation, 827.

Date, Aug. 24. 1880.

Locality, North of Block I.

Bearings, North light of Block I., W. N. W. 1/2 W. 2 1/2 miles.

Time of day, 3.05 P.M. of tide,

State of sky, clear.

Temperature of air, 71.

" surface of water, 67° N.Z. 46400.

" at depth of 5 fathoms. 66. N.Z. 40007.

" of bottom, 57. "

Depth, in fathoms, 20 1/2

Nature of bottom, sand.

Direction of ~~surface current~~, wind S.

Force of ~~surface current~~, wind 3.

Direction of ~~bottom current~~, Drift

Force of bottom current. Distance

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

827.

REMARKS.

Arthur Conway
Echinorhinus spinosus
Scyllium stellare
Chimera borealis
Squalus Barbatus
Raia oxyrhynchus
Raia Batis
Pastinaca Hirundo

Two hauls were made and included under this number. The first brought up nothing. The second but very little, all the Invertebrata being contained in the above list. The reason assigned was that a sixty lb. Bale was attached to end of bag, causing the runners to raise high in the water when the strain came upon them.

Physis Ferris
Raia oxyrhynchus

Dredge.

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra.

Current number of observation, 828.

Date. Aug. 25, 1880.

Locality, Off Block Island.

Bearings, North Lt. Block I., S. W. by W. 3/4 W., 2½ miles.

Time of day, 12.40 P.M. of tide.

State of sky, Stormy.

Temperature of air, 70.

" surface of water, 66. N.Z. 46400

" at depth of fathoms,

" of bottom, 60. N.Z. 40007.

Depth, in fathoms, 15.

Nature of bottom, sand.

Direction of ~~surface current~~ wind, N. N. E.

Force of ~~surface current~~ wind, 6.

Direction of ~~bottom current~~ drift, E. N. E.

Force of ~~bottom current~~ Distance, 1/4 mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

But very little came up
sandy bottom.
Echinarachnius parma.
Stereoderma) unisemita
Cirolana ?
Nephthys
Small sandy Ascidian
(Eugyra pilularis ??)
few small shells.

This was the beginning of
a two days trip, the morning
opening with fair prospects,
but a North East gale struck
us, just about as the
above dredge went down
and we were obliged to
return to port.

Dredge

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra.

Current number of observation, 829.

Date, Aug. 27, 1880.

Locality, Off Mouth of Sakonnet R.

Bearings, Cormorant Rock, N.W. by N. 1/4 mile

Time of day, 10,45 a.m.; of tide.

State of sky, Clear.

Temperature of air, 63.

" surface of water, 66. N.Z. 42666.

" at depth of fathoms,

" of bottom, 65. N.Z. 40007.

Depth, in fathoms, 9.

Nature of bottom, gravel and stones.

Direction of ~~surface current~~ wind, E.

Force of ~~surface current~~ wind, 2.

Direction of ~~bottom current~~ drift, S. by E.

Force of ~~bottom current~~ Distance, 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

829.

REMARKS.

Gravel, fine and coarse.
Nearly barren
Red Millipore
Delicate red & green weed.
Cliona Celata for
Bryozoa on seaweeds. many
Asterias Forbesii. 1
Cochella & nuculoides 2 small
Ophiopholis aculeata 1.
Canaer (small) 3 or 4.
Chiton marmoreus. 2 or 3.
Crepidula fornicata 2
Modiola rhodius. 1.
Balanus few

Dredge

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 830.

Date, Aug. 27, 1880.

Locality, Off Mouth of Salmonier River

Bearings, West Island, S. E. by E. 1/2 E., 3/4 mile,

Time of day, 11. 15 a.m.; of tide,

State of sky, clear.

Temperature of air, 64,

" surface of water, 66, N.Z. 42666,

" at depth of fathoms,

" of bottom, 65. N.Z. 40007.

Depth, in fathoms, 10 1/2

Nature of bottom, sand.

Direction of ~~surface current~~ wind, E.

Force of ~~surface current~~ wind, 2,

Direction of ~~bottom current~~ drift, N. E. 1/2 E.

Force of ~~bottom current~~ distance, 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

820.

REMARKS.

Sand and gravel, nickout
net algae. more ~~much~~ (lesser
than last
Many stones covered with
barnacles. Dead shells.
Small living shells.
Few annelids
Cancer irroratus
Euphausiacea. Bernhardus. in shells
covered with Hydractinia.
Holothuria. Forbesii ^ fair (one)

Dredge

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 831.

Date, Aug. 27. 1880.

Locality, Sakonnet River North End of Gould Island

Bearings, S. W. 1/4 W. 350 yards.

Time of day, 12.30 P.M.; of tide,

State of sky, clear,

Temperature of air, 68.

" surface of water, 71. Nz. 42666,

" at depth of fathoms,

" of bottom, 71. Nz. 40007.

Depth, in fathoms, 6.

Nature of bottom, black mud.

Direction of ~~surface current~~ wind S. E.

Force of ~~surface current~~ wind 1.

Direction of ~~bottom current~~ Drift S.

Force of ~~bottom current~~ distance 1/4 mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

831.

REMARKS.

A black, or dark brown, soft
felis mud with
Nucula proxima, very abd.
Mulinia lateralis.
Yoldia limatula large.
Also some other species.

This same character of
bottom continued through
834, but the first one or
two hauls, had the
strongest smell. The
mud seemed to become
purer or clearer in character
down river and 835 had
no smell whatever, although
it was a genuine soft
mud.

Dredge.

TEMPERATURE RECORD.

Instrument used. Negretti & Zambra

Current number of observation. 832

Date. ~~Dec~~ Aug. 27, 1880,

Locality, Sakonnet River,

Bearings, N. End of Gould Island.

West, 150 yards,

Time of day, 12.45 P.M.; of tide,

State of sky. clear,

Temperature of air, 70.

" surface of water, 71. N.Z. 42666,

" at depth of fathoms,

" of bottom, 71. N.Z. 40007.

Depth, in fathoms, 9.

Nature of bottom, Black Mud,

Direction of ~~surface current~~ wind, S.E.,

Force of ~~surface current~~ wind, 1,

Direction of ~~bottom current~~ drift, S.

Force of bottom current distance, 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

832.

REMARKS.

Same as last.

Chester Rake Dredge

TEMPERATURE RECORD.

Instrument used, Negretti & Zambra

Current number of observation, 833.

Date, Aug. 27. 1880.

Locality. Sakonnet River.

Bearings. South End of Goules Island 1000 yards.

Time of day, 1 P.M. ; of tide.

State of sky, clear

Temperature of air, 70.

" surface of water, 71, NZ. 42666,

" at depth of fathoms,

" of bottom, 71. NZ. 40002.

Depth, in fathoms, 6 1/2

Nature of bottom, mud.

Direction of ~~surface current~~ wind S. E.

Force of ~~surface current~~ wind 1.

Direction of ~~bottom current~~ drift- S.

Force of ~~bottom current~~ Distance 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

833.

REMARKS.

Same in character as Cast.

Chesapeake Bridge.

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 834.

Date. Aug. 27. 1880.

Locality, Pakonnet River.

Bearings. McCurry's Point W.S.W. 3/4 mile.

Time of day, 1.30 P.M. : of tide.

State of sky, clear

Temperature of air, 63.

" surface of water, 73. N.Z. 42666.

" at depth of fathoms,

" of bottom, 71. N.Z. 40002.

Depth, in fathoms, 11.

Nature of bottom, mud.

Direction of ~~surface current~~ wind, E.

Force of ~~surface current~~ wind, 2.

Direction of ~~bottom current~~ drift, N. by E.

Force of bottom current ~~distance~~ 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

834.

REMARKS.

Drawn at Cairo.
Du abdomen la large membrane
Mucosa proximal. thin
Crepitula fornicata, beyabbi. Nat.
Galerus limnaeiformis Kiener
Lycoleptes canaliculatus
Libania canalis auctt 2.
Macrocerma proliferum Desh.
Nephelys
Cidaris Gouldii.
Cupanopsis pollicaris, one
" bryocarpus one
Cancer (young)
Mulinia Colorado.

Chester Rake Bridge

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 835.

Date, Aug. 27, 1880.

Locality, Sakonnet River.

Bearings, McCurry's Point N. 1/4 E.
1 1/4 miles.

Time of day, 1.50 P.M. ; of tide,

State of sky, clear.

Temperature of air, 68.

" surface of water, 73. N.Z. 42666.

" at depth of fathoms,

" of bottom, 71. N.Z. 40007.

Depth, in fathoms, 3 1/2

Nature of bottom, mud and shells.

Direction of ~~surface current~~ wind, S. E.

Force of ~~surface current~~ wind, 2.

Direction of ~~bottom current~~ drift, N.

Force of ~~bottom current~~ distance, 1/4 mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Soft mud, broken and dead shells ~~some no kept~~. Great number of dead shells. The material very large composed of chaff. Crepidula formicata. Anomia glabra dead, and more or less decayed, and many covered with encrusting bryozoa

Lebinia Canaliculata

Chester Rake Dredge.

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 836.

Date, Aug. 27. 1880.

Locality, Pakonnet River.

Bearings, Black Point, N. 1/4 N., 1/2 mile

Time of day, 2.25 P.M.; of tide,

State of sky, clear.

Temperature of air, 66.

" surface of water, 71. N.Z. 42666.

" at depth of fathoms,

" of bottom, 71. N.Z. 40002.

Depth, in fathoms, 5.

Nature of bottom, sand.

Direction of ~~surface current~~ wind, S. S. E.

Force of ~~surface current~~ wind, 2

Direction of ~~bottom current~~ drift, S. S. W.

Force of ~~bottom current~~ distance, 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

836

REMARKS.

Sand but very little bottom
material came in/..
Many small hermit crabs
Beginia Tenuila
Endeadeca armiramosa
Ralyonium occillata, many young.
Sabinia Carnabrakei: Many in
Eupagurus Longicarpus in Tubes
Distentha, Nereida, etc made up
the larger part of the haul.
Eupagurus pollicaris also common
but in small rare. Bivalves

Trawl

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra.

Current number of observation. 837.

Date. Aug. 27, 1880.

Locality, Sakonnet River.

Bearings. Black Point N. W. by W. 1/2 W., 1/2 mile

Time of day, 2.45 P.M.; of tide,

State of sky, Clear.

Temperature of air, 69.

" surface of water, 71. N.Z. 42666.

" at depth of fathoms,

" of bottom, 71. N.Z. 40007.

Depth, in fathoms, 5.

Nature of bottom, sand.

Direction of ~~surface current~~ wind. S. S. E.

Force of ~~surface current~~ wind, 2.

Direction of ~~bottom current~~ drift. S. by E.

Force of ~~bottom current~~ distance 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Libinia emarginata. small
Carex irrorata ? many
Platypecten vexillatus young many
Nereita bupleuroides
Fulgur carica. small
Sycotypus canaliculatus "
Lobiger Pealii, 2.
Eupagurus pollicaris many
Crepidula plana "
Bursula turrita "
Asteria Forbesii, few.
Facelina albina a Asperium
Lophopsetta maculata
Cynoscion regalis, fin. Menaem
Elminius vitiatus
Rotonotus tricanthus, abdt,
Rhizopleurocetes Americanus, many
Rhizostombus dentatus,
" oblongus
Pricnotus Carolinus (fin, abdt)
" scolopax, " rare
Raia eglanteria ?
Manteicum nebulosum
Siphonostoma fasciatum

Trawl

TEMPERATURE RECORD.

Instrument used, Negretti & Zambra

Current number of observation, 828.

Date, Aug. 27. 1880.

Locality, Sakonnet River.

Bearings, Wood's Castle W. by N., 1 mile.

Time of day, 3.15 P.M., of tide,

State of sky, clear.

Temperature of air, 66.

" surface of water, 70 N.Z. 42666.

" at depth of fathoms,

" of bottom, 68. N.Z. 40007.

Depth, in fathoms, 5 1/2

Nature of bottom, sand.

Direction of ~~surface current~~, wind S. S. E.

Force of ~~surface current~~, wind 2.

Direction of ~~bottom current~~, drift S. by E.

Force of ~~bottom current~~, dist. 1/4 mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

838

REMARKS.

Large quantities of jelly fishes, mostly Medusae, Lobes, Ctenophores, Cyanea arctica, Common off, caught on the hook
Very little material
Dysokrypus carinatus
Bythotrema (much)
Platyscias ocellatus, one adult.
Crepidula plana.
Echinarachnius parma, one
Lebrunia coralicultata
Eurypanopeus politicarpi, many

Porcellana triacanthus
Chitichthys tenuifrons (one)
Microstomus pacificus
Raja rhina
Pseudopleuronectes dentatus.
Stenotomus argyrops.
Lophopsetta maculata

Dredge.

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation. 839.

Date, Aug. 31. 1880.

Locality, Narragansett Bay.

Bearings, Dumplings N. W. ½ W. N.
300 yards.

Time of day, 9.50 ; of tide,

State of sky, l. c.

Temperature of air, 67.

" surface of water, 67. N.Z. 42666.

" at depth of 5 fathoms. 62° (107. 65°
N.Z. 107

" of bottom, 61. N. Z. 40007.

Depth, in fathoms, 27½

Nature of bottom, gravel

Direction of ~~surface current~~ wind N. N. E.

Force of ~~surface current~~ wind 2

Direction of ~~bottom current~~ drift S. W.

Force of ~~bottom current~~ drift " ¼ mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

839.

REMARKS.

Dark and fresh. Quite
rich in life.
Large quantities of Lamin-
aria and other Seaweeds.
with abelia Nicholsonia
and Bugula.

Cancer borealis ? young
" irroratus ? "
Bugula turrita
Bugula caminalis stones
Cancellus Striatus
Asterias rubens
Buccinum borealis.
Asterias Forbesii.

Dredge

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra.

Current number of observation, 840.

Date, Aug. 31. 1880.

Locality, Narragansett Bay,

Bearings, Dumplings N. by W. 1/2 W.

1007 yards.

Time of day, 10.05 a.m.; of tide,

State of sky, C. C.

Temperature of air, 67.

" surface of water, 67. (N.Z. 42666)

" at depth of 5 fathoms, 65° (10 fathoms 65° (N.Z. 40007.

" of bottom, 61

Depth, in fathoms, 20 1/2

Nature of bottom, gravel.

Direction of ~~surface current~~ wind, N. N. E.

Force of ~~surface current~~ " 2.

Direction of ~~bottom current~~ drift

Force of ~~bottom current~~ " Dist.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

840

REMARKS.

Same as last.

Dredg

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 841.

Date. Aug. 31, 1880.

Locality, Narragansett Bay,

Bearings, Rhode Island Lt., N. E. by E. 3/4 E., 7/8 mile.

Time of day, 10.45 a.m. of tide,

State of sky, C. c

Temperature of air, 68.

" surface of water, 67. (N. Z. 42666.

" at depth of 5 fathoms, 67 (Of. 65° N. Z. 40007

" of bottom, 60 (N. Z. 40007

Depth, in fathoms, 21.

Nature of bottom, gravel.

Direction of ~~surface current~~, wind E. N. E.

Force of ~~surface current~~, " 2.

Direction of ~~bottom current~~, drift S.

Force of ~~bottom current~~, Dist. " 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

841.

REMARKS.

mid and large atoms.

Molecular Forces
Molecules in equilibrium

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 842.

Date, Aug. 31, 1880.

Locality, Narragansett Bay.

Bearings, ~~Rhode~~ Goat Island Lt., E. N.E. 1/2 E., 1/2 mile.

Time of day, 11. a.m. ; of tide,

State of sky, clear.

Temperature of air, 69.

" surface of water, 67. (N.J. 42666

" at depth of fathoms,

" of bottom, 67. N.J. 40007.

Depth, in fathoms, 8.

Nature of bottom, sand.

Direction of ~~surface current~~ wind, east

Force of ~~surface current~~ " , 2.

Direction of ~~bottom current~~ Drift,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

842

REMARKS.

Track

TEMPERATURE RECORD.

Instrument used, Negretti - Zambra

Current number of observation, 843

Date, Aug. 31. 1880.

Locality, Narragansett Bay.

Bearings, N. end of Dyer's Island N. E. 1/2 E., 3/4 mile

Time of day, 12 M. ; of tide,

State of sky, clear.

Temperature of air, 69.

" surface of water. 69 (N.J. 42666)

" at depth of 5 fathoms. 67 (N.J. 40007.

" of bottom. 63 "

Depth, in fathoms, 14 1/2

Nature of bottom, sand.

Direction of ~~surface current~~ wind East.

Force of ~~surface current~~, 3.

Direction of ~~bottom current~~ drift N.

Force of ~~bottom current~~ drift. " 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Asteriás Forbesii, mary.
Cribrella sanguinolenta
Asterias Americana
Cancer hirsutus

Trawl.

TEMPERATURE RECORD.

Instrument used. Negretti Zambra

Current number of observation. 844.

Date. Aug. 31. 1880.

Locality. Narragansett Bay,

Bearings. N. end of Dyer's I., S. E. ½ E., ¼ mile.

Time of day, 12.30 Pm; of tide,

State of sky, clear

Temperature of air, 70.

" surface of water, 69 (N.Z. 42666

" at depth of 5 fathoms. 67. (N.Z. 40007.

" of bottom, 62. "

Depth, in fathoms, 11½

Nature of bottom, sand

Direction of ~~surface current~~ wind. E.

Force of ~~surface current~~ " 2.

Direction of ~~bottom current~~ drift. N. S. N.

Force of ~~bottom current~~ drift. " ¼ mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

844.

REMARKS.

Much Laminaria, Rockweed, and other seaweeds.
Asteria Forbesii
Crebrella quinquiradiata
Hyalinia americana (young)
Libinia (young)
Arbacia punctulata (young)
Many broken shells coarse mixt bryozoa etc.

Raia sp.
Lophopsetta maculata.
Pseudopleuronectes americanus
Hyppoglossus hippoglossus
Syngnathus fuscus,
Scorpaenichthys & Sphyraena

Transit

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra.

Current number of observation, 845.

Date, Aug. 31. 1880.

Locality, Narragansett Bay.

Bearings, Rhode Island light, N. 1/2 W. 3/4 mile

Time of day, 1 P.M. ; of tide,

State of sky, Clear.

Temperature of air, 70.

" surface of water, 69. (N.O. 42666.

" at depth of 5 fathoms, 67. (N.O. 40007.

" of bottom, 64. "

Depth, in fathoms, 14 1/2

Nature of bottom, Gravel.

Direction of ~~surface current~~ wind, N.E.

Force of ~~surface current~~ " 3.

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

846

REMARKS.

Caught on rock, very little cover up.
Asterias Forbesii, female
Ampelisca birulai
Sphyrapus
Crepidula fornicata

Physis seminis.
Rock ch (fine)

Chester Lake Dredge.

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 846.

Date, Aug. 31. 1880.

Locality, Narragansett Bay

Bearings, Prudence Lt., N. by E. 3/4 E., 1 1/2 miles.

Time of day, 1.35 P.M.; of tide,

State of sky, Clear.

Temperature of air, 70.

" surface of water, 68. (N.J. 42666

" at depth of 5 fathoms. 67. (N.J. 42667.

" of bottom, 63. "

Depth, in fathoms, 14 1/2

Nature of bottom, gravel

Direction of ~~surface current~~ wind, N. E.

Force of ~~surface current~~, 3,

Direction of ~~bottom current~~ Drift, E. N. E.

Force of ~~bottom current~~ Dist. ", 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

846.

REMARKS.

Bay nearly free of sand, mud with broken shells. Moderately rich in life.
Asteriás Forbesii.
Cribrella sanguinolenta
Cancer (young)
Many shells.
Callianassa Stimpsoni.

Track

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra.

Current number of observation, 847.

Date, Aug. 31. 1880.

Locality, Narragansett Bay.

Bearings, Half Way Rock, N. ¼ W., 1 mile.

Time of day, 2.15 P.M.; of tide.

State of sky, clear.

Temperature of air, 70.

" surface of water, 68. (N.Z. 42666

" at depth of 5 fathoms, 68. (N.Z. 40007.

" of bottom, 62. (N.Z. 40007.

Depth, in fathoms, 12½

Nature of bottom, mud.

Direction of ~~surface current~~ wind, E.

Force of ~~surface current~~, 3.

Direction of ~~bottom current~~ drift, N.N.E.

Force of bottom current, dist. " ¼ mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

847.

REMARKS.

The bag worms in large quantity of mud but hope saved out lower end of bag. Certainly out most of contents.
amphipods. abundant
" Isopods "
annelids.
Callianassa & Fiddler crabs.

Trawl

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 8488

Date, Aug. 31. 1880.

Locality, Narragansett Bay,

Bearings, Bishop's Rock, East, 1/2 mile.

Time of day, 3. P.M. ; of tide,

State of sky, clear.

Temperature of air, 69.

" surface of water, 68. (N.Z. 42666.

at depth of 5 fathoms, 68° (10f. 67° N.Z. 40007.

" of bottom, 62 N.Z. 40007.

Depth, in fathoms, 15 1/2

Nature of bottom, mud.

Direction of ~~surface current~~ wind, S. E.

Force of ~~surface current~~, " 3.

Direction of ~~bottom current~~ drift, N.

Force of ~~bottom current~~ drift. " 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Many Lamineæ, and
their seeds.
Hosium Amygdalus 1.
Syconium Caricæ.
Cupula Balanidis. D. fruit
Cones Coniferæ
Helenia Fenzlii.
" vulgaris. 1.

Rana Erythræa.
Pseudopleurotus Amygdalus
Depazea maculata
Pseudostomum oblongum
Stenotomus aegyptius.
Physcia Cesati
Agaricus vegetus.
Fabitogalerus adspersus

Rake Dredge

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra.

Current number of observation, 849.

Date, Sept. 1. 1880.

Locality, Narragansett Bay.

Bearings, Ft. Dumpling N. N. W. ½ W. 1/4 mile.

Time of day, 9.20 ; of tide, ebb.

State of sky, clear.

Temperature of air, 67.

" surface of water, 67 (N.Z. 42666.

at depth of 5 fathoms, 67° (N.Z. 40007 107. 66°

" of bottom, 63. , N. Z. 40007.

Depth, in fathoms, 20.

Nature of bottom, sand.

Direction of ~~surface current~~, wind variable

Force of surface current, 4 1.

Direction of ~~bottom current~~, drift S. W.

Force of bottom current, dirt. " 1/4 mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Sand, gravel, stones.
Many Hydroids.
Actinia vulgaris 3.
" Forbesii 5.
Eupagurus bernhardus, many
Corbetes variegatus (many)
Few annelids.
Cynthia carnea.
Eupagurus pollicaris.
Carcer (gracilis, rare)

Fauto-glabrum asperum.
Syngnathus fuscus.

Rake Dredge

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 858.

Date, Sept. 1. 1880.

Locality, Narragansett Bay.

Bearings, Ft. Dumpling. E. N. E. 1/2 E., 1/2 mile.

Time of day, 9.40 a.m.; of tide, ebb.

State of sky, clear.

Temperature of air, 67.

" surface of water, 67. (N. Z. 42666.

" at depth of 5 fathoms, 67° (of. 66°. N.Z. 40007.

" of bottom, 63. (N. Z. 40007.

Depth, in fathoms, 14 1/2

Nature of bottom, shells.

Direction of ~~surface current~~ wind, East.

Force of ~~surface current~~ " , 2.

Direction of ~~bottom current~~ Drift, S.S.W.

Force of ~~bottom current~~ Dist. " , 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

850.

REMARKS.

Land. Large granitic D
Land Drift.
Carboniferous Conglomerate,
Sandrock, limestone, clays &
gravels.

Base Dredge

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 857.

Date, Sept. 1, 1880,

Locality. Narragansett Bay,

Bearings. Beaver Tail Lt., S. N. 1/4 W.

1 3/4 miles.

Time of day, 10, am, ; of tide, ebb.

State of sky, clear.

Temperature of air, 66.

" surface of water. 67. (N. J. 42666,

" at depth of 5 fathoms, 66° (N. J. 40007.

" of bottom, 66, "

Depth, in fathoms, 12 1/2

Nature of bottom, sand.

Direction of ~~surface current~~ wind, S. E.

Force of ~~surface current~~ " 2.

Direction of ~~bottom current~~ drift, S.

Force of ~~bottom current~~ Dist. " 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

857.

REMARKS.

Muck laminaria sand & gravel.

Syngnathus fuscus.

Trawl

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 852.

Date, Sept. 1, 1880.

Locality, Narragansett Bay.

Bearings, Beaver Tail light, S.S.W. 3/4 W., 2 1/8 miles.

Time of day, 10.35 a.m.; of tide, ebb.

State of sky, clear.

Temperature of air, 67.

" surface of water, 67 76. (N.Z. 42666

" at depth of fathoms,

" of bottom, 66. (N.Z. 40007.

Depth, in fathoms, 2 1/2

Nature of bottom, sand.

Direction of ~~surface current~~ wind, East.

Force of ~~surface current~~, 1.

Direction of ~~bottom current~~ drift, S.

Force of ~~bottom current~~ " dist., 1/4 mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

Note - Mid-channel in Mackerel Cove.

852.

REMARKS.

Many dead heads Squaloraia.
Solea Reali ajung.
Echinarachnius parma.
Mimaris americanus.
Engraulis pollicaris.

Stenotomus argyrops.
Pseudopleuronectes Americanus.
Lophopsetta maculata.
Raia erinacea.
Prionotus Carolinus
Tautogolabrus adspersus
Synodus fœtens.
Rhinoxhombus dentatus.

Transcript.

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 853.

Date, Sept. 1, 1880.

Locality, Narragansett Bay,

Bearings, Beaver Tail Lt. S. W. by S., 2 miles.

Time of day, 10.50 am; of tide, ebb.

State of sky, clear.

Temperature of air, 68.

" surface of water, ~~76~~ 67. N. Z. 42666

" at depth of fathoms,

" of bottom, 67. N. Z. 40007.

Depth, in fathoms, 4 1/2

Nature of bottom, sand.

Direction of ~~surface current~~ mid, East.

Force of ~~surface current~~, 1.

Direction of ~~bottom current~~ drift, S.

Force of ~~bottom current~~ " 1/4 mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

Note - Mid channel in Mackerel Cove.

853.

REMARKS.

Lamnidæ.
Odontaspis Americanus (young)
Libinia emarginata
Loligo Pealii? young.

Lophopsetta maculata.
Pseudorhombus dentatus.
Pseudopleuronectes Americanus.
Stenotomus argyrops.
Cynoscion regalis
Raia
Paionotus carolinus
Tautogolabrus adspersus.

Trawl

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra.

Current number of observation, 854.

Date, Sept. 1, 1880.

Locality, Narragansett Bay.

Bearings, Beaver Tail Lt. S. N. ¼ E. 1 3/4 miles.

Time of day, 11.10 am; of tide, ebb.

State of sky, clear.

Temperature of air, 69.

" surface of water, 67. (N. Z. + 2666.

" at depth of fathoms,

" of bottom, 67. (N. Z. + 0007.

Depth, in fathoms, 6.

Nature of bottom, sand.

Direction of ~~surface current~~ wind, S. E.

Force of surface current, " 1,

Direction of bottom current, ~~Dist.~~ S.

Force of bottom current, " 1/4 mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

mid channel in Mackerel
2 Coves

REMARKS.

Same in character as Cant.
Limulus Polyphemus
Homarus Americanus

Stenotomus argyrops.
Pogonias Carolinus.
Pseudorhombus dentatus.
Tautogolabrus adspersus.
Pseudopleuronectes Americanus
Lophopsetta maculata.
Cynoscion regalis.

Trawl.

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 855.

Date, Sept. 1, 1880.

Locality, Narragansett Bay,

Bearings, Beaver Tail Lt., S. W. by S., 2 miles,

Time of day, 11.40 a.m.; of tide, ebb.

State of sky, clear.

Temperature of air, 70.

" surface of water, 68. (N. J. 42666

" at depth of fathoms,

" of bottom, 68. (N. J. 40007

Depth, in fathoms, 3½

Nature of bottom, sand.

Direction of ~~surface current~~ wind, E.

Force of ~~surface current~~ wind, 1.

Direction of ~~bottom current~~ drift, S.

Force of ~~bottom current~~ Dist. drift, ¼ mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Same as Raia
Rhinoptera Americana Mey
Sycotypus canaliculatus
Callinectes hastatus
Lunaria heros
Eurypanopeus planifrons

Raia eriacea.
Chilichthys turgidus.
Stenotomus argyrops.
Pseudopleuronectes Americanus.
Lophopsetta maculata.
Syngnathus fuscus.
Prionotus carolinus.

Rake Dredge.

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation. 856.

Date. Sept. 1. 1880.

Locality. Narragansett Bay,

Bearings. Beaver Tail light.

S. W. 1/2 W., 1 3/8 miles.

Time of day, 12.05 P.M. of tide.

State of sky, Clear.

Temperature of air, 69.

" surface of water, 68. (N.Z. 42666.

" at depth of fathoms,

" of bottom, 67 (N.Z. 40007.

Depth, in fathoms, 11.

Nature of bottom. Gravel.

Direction of ~~surface current~~ wind E.

Force of ~~surface current~~, " 2.

Direction of ~~bottom current~~, drift. S. S. E.

Force of ~~bottom current~~, Dist. Drift. 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

856.

REMARKS.

Cyprina Islandica. Several
valves. Small, broken shells.
Lamellaria
Mytilus edulis

Rake Dredge

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 8377.

Date, Sept. 1, 1880.

Locality, Narragansett Bay.

Bearings, Beaver Tail Lt., N.S.W. 3/4 W., 6/10 mile.

Time of day, 12.35 P.M. of tide,

State of sky, l. c.

Temperature of air, 69.

" surface of water, 63 (N.J. 42666

" at depth of 10 fathoms, 66.5 (N.J. 40007

" of bottom, 66. "

Depth, in fathoms, 19.

Nature of bottom, sand.

Direction of ~~surface current~~ wind S. E.

Force of ~~surface current~~, " 2.

Direction of ~~bottom current~~, drift S. E.

~~Force of bottom current~~, Dist. " 1/4 mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

857.

REMARKS.

Large quantities Saururus adult. & Orchidaceæ

858.

Rake Dredge.

Coarse sand. broken shells.

Cancer borealis

7.30 - 67.

7.45 = 67